69944

Method of Investigating Dynamic Stability on Analog Computers

S/105/60/000/04/002/024
B007/B008

multipliers must be used for these problems. The methods of checking the correctness of the solution of problems of dynamic stability are investigated. The most correct and most suitable checking of transients is the solution of the problem on various time scales. Problems of dynamic stability of a synchronous generator were successfully solved on the analog computer developed at the LPI im. Kalinina (Leningrad Polytechnic Institute imeni Kalinin) under the direction of Professor T. N. Sokolov with the aid of the method given here. There are 4 figures and 5 Soviet references.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. Kalinina (Leningrad Polytechnic Institute imeni Kalinin)

SUBMITTED: September 19, 1959

Card 3/3

VAZHNOV, A.I.; POPOV, V.V.

Dynamic stability of an asynchronous generator with excitation in the rotor circuit. Izv. vys. ucheb. zav.; elektromekh. 3 no.11:54-64 '60. (MIRA 14:2)

(Electric generators)

POPOV, V.V., GOVOROV, V.P., nauchnyy red.; YEL'CHUKOV, V.S., red.; BERKUT, I.V., otv.za vypusk

[Program for the subject "Machines and apparatus for sanitary engineering work" in the technical school major - "Sanitary installations in buildings," approved by the Ministry of Higher Education of the U.S.S.R., April 14, 1955. A 65-hour course] Programma predmeta "Stanki i mekhanizmy dlia proizvodstva sanitarno-tekhnicheskikh rabot" k uchebnomu planu spetsial'nosti tekhnikumov "Sanitarno-tekhnicheskie ustroistva zdanii," utverzhdennomu Ministerstvom vysshego obrazovaniia SSSR, 14 aprelia 1955 g. Ob"em programmy - 65 chasov. Moskva, Uchebno-metodicheskii kabinet, 1958. 7 p. (MIRA 12:2)

1. Russia (1917- R.S.F.S.R.) Ministerstvo stroitel'stva. Otdel uchebnykh zavedeniy upravleniya kadrov.
(Building machinery)

POPOV, V.T.

AID Nr. 980-18 31 May

INSTALLATION FOR RADIATION CHEMISTRY RESEARCH (USSR)

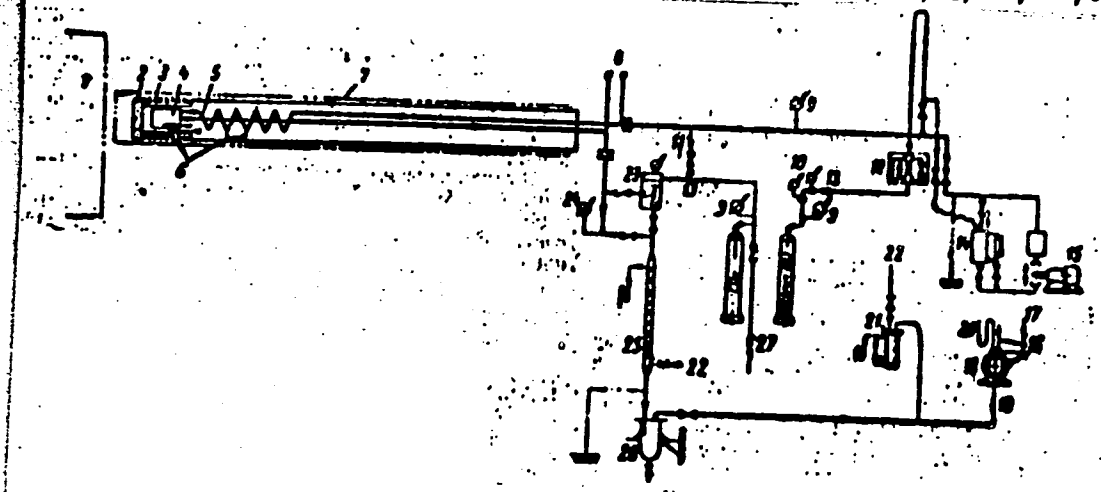
Akhundov, A. A., G. S. Karumidze, G. M. Krasavtseva, and V. T. Popov.
Atomnaya energiya, v. 14, no. 4, Apr 1963, 412-414.
S/089/63/014/004/015/019

An organic test loop (see illustration) for research in the field of radiation chemistry with gases, vapors, and liquids in the temperature range from 40 to

Card 1/4

AID Nr. 980-18 31 May

INSTALLATION FOR RADIATION CHEMISTRY [Cont'd] S/089/63/014/004/015/019



Flow diagram of the loop

——— = organic fluid; ——— = purging line.

Card 2/4

AID Nr. 980-18 31 May

INSTALLATION FOR RADIATION CHEMISTRY [Cont'd] S/089/63/014/004/015/019

1 - Reactor core; 2 - B_4C filter; 3 - electric heater; 4 - reaction zone; 5 - current conducting tube-evaporator; 6 - thermocouples; 7 - reactor channel; 8 - electric power supply; 9,24 - manometers (p = 1-60 atm); 10 - pressure reducer (from 0-150 to 0-60 atm); 11 - air line; 12 - flowmeter with capillary tube (p = 100 atm); 13 - capillary tube; 14 - raw [test] fluid tank (1.5 liters); 15 - fluid pump; 16 - thermometer (0-50°C); 17 - to ventilation; 18 - gasmeter; 19 - sampling line; 20 - U-tube manometer (p = 600 mm water column); 21 - hydraulic shutoff valve (p = 600 mm water column); 22 - water; 23 - pressure regulator; 25 - cooler; 26 - gas separator; 27 - purging line.

600°C and pressures from 1 to 30 atm has been designed and installed in the IRT-2000 nuclear reactor by the Physics Institute of the Georgian Academy of Sciences, in collaboration with the Institute for Petrochemical Synthesis, Academy of Sciences USSR (Moscow), and the Institute of Petrochemical Processes imeni Mamedaliyev (Tbilisi). The loop features automatic control of

Card 3/4

AID Nr. 980-18 31 May

INSTALLATION FOR RADIATION CHEMISTRY [Cont'd] S/089/63/014/004/015/019

temperature, pressure, and the sampling and analysis of gaseous substances. Some of the loop's components and their characteristics are 1) variable-delivery fluid pump with a capacity range of 50 to 3000 ml/hr; 2) pressure regulator, providing a reliable pressure control of hot vapors of organic fluids (up to 300°C) at 1 to 30 atm; 3) electrical connectors, which can operate at pressures above 30 atm and temperatures up to 300°C. The loop has been used successfully for a number of experiments. [AS]

Card 4/4

AKIMOV, V.F.; [illegible], Ye.A.; POPKOV, V.V.

Dynamic properties of a trap-separator as an object of automatic control. Neft. khoz. 42 no.7:52-56 Jl '64.
(MIRA 17:8)

POPOV, V.S.; MAL'TSEV, Yu.A.

Small-cosine three-phase wattmeter for commercial and stepped up frequencies. Izm. tekh. no. 3:40-43 Mr '61. (MIRA 14:2)
(Wattmeter)

POPOV, V.V., inzhener.

Improved techniques for air duct installation. Sudostroenie 22 no.5: 42 My '56. (MIRA 9:9)
(Air pipes) (Marine pipe fitting)

USHAKOV, G.N., LITKIN, V.B., KOCHETKOV, L.A., POPOV, V.V., HELINSKAYA, N.T., SOKOLOV, A.F.

The operating experience with the steam generators of the first atomic power station.

Report submitted for the Conference on Operating experience with the power reactors, Vienna, 4-8 June 63

POPOV, V.V.

Relaxation of thermal stresses in the upper layers of the earth.
Izv. AN SSSR. Ser. geofiz. no.10:1494-1507 O '63. (MIRA 16:12)

1. Institut fiziki Zemli AN SSSR.

POPOV, V.V.

Some scientific results of the Voronezh Interuniversity Conference on the Construction on Loessal Soils. Biul. Kom.chetv.per. no. 28:176-182 '63. (MIRA 17:5)

GORYACHEV, A.V.; YERSHOV, I.A.; KIRILLOV, F.A.; KUZIN, I.P.; LYAMZINA, G.A.; MEDVEDEV, S.V.; POPOV, V.V.; FEDOTOV, S.A.; SHTEYNBERG, V.V.

Seismic microzoning of the Petropavlovsk-Kamchatskiy area. Trudy Inst. fiz. Zem. 28 Vop. inzh. seism. no.8:3-60 '63. (MIRA 16:11)

ACCESSION NR: AR4039335 S/0277/64/000/003/0030/0030

SOURCE: Ref. zh. Mashinostr. mat. konstr. i raschet detal. mash. Otd. vy*p., Abs. 3.48.233

AUTHOR: Azizov, I. A.; Popov, V. V.

TITLE: Some problems in the methodology of determining long-duration strength of pearlite steels

CITED SOURCE: Sb. Polzuchest' i dlitel'n. prochnost. Novosibirsk, Sib. otd. AN SSSR, 1963, 152-154

TOPIC TAGS: pearlite steel, metal hardness, steel hardness, strength, steel strength, pearlite steel strength, steel brittleness, steel strength test

TRANSLATION: To determine the calculated characteristics of long-duration strength of pearlite steels, it is recommended that the metal be tested with at least three different hardnesses: minimum, average, and maximum. As a result of the danger of brittleness and instability of the metal structure, it is recommended that the upper range of hardness of the steel be limited in the metal of maximum hardness.

Card 1/

POPOV, V. V.

1964

ZOOLOGY

DECEASED

C.63

SMORODINOV, V.Ya.; POPOV, V.V.

Converting DKV 10/13 and Shukhov-Berlin A-7 steam boilers to the burning of natural gas. Gaz. prom. 9 no.9:31-34 '64. (MIRA 17:10)

POPOV, V.V., kand.tekhn.nauk

How to improve the maintenance and repair of ties. Put' put. khoz. no.9:34-36 S '59. (MIRA 12:12)
(Railroads--Ties)

SHAKHUNYANTS, Georgiy Mikhaylovich, doktor tekhn. nauk; AMELIN, S.V., prof., retsenzent; KONSTANTINOV, V.N., dots., retsenzent; SMIRNOV, M.P., retsenzent; YAKOVLEV, V.F., retsenzent; BOCHENKOV, M.S., kand.tekhn. nauk, retsenzent; BROMBERG, Ye.M., retsenzent; YERSHKOV, O.P., retsenzent; ZVEREV, B.N., retsenzent; ZOLOTARSKIY, A.F., retsenzent; IVASHCHENKO, G.I., retsenzent; LINEV, S.A., retsenzent; MARKAR'YAN, M.A., retsenzent; POPOV, V.V., retsenzent; POPOV, S.N., retsenzent; SEREBRENNIKOV, V.V. retsenzent; SHAFRANOVSKIY, A.K., retsenzent; NOVITSKIY, G.I., inzh., retsenzent; VIKTOROV, I.I., kand.tekhn.nauk, retsenzent; VYSOTSKIY, A.F., kand.tekhn.nauk, retsenzent; SAATCHYAN, G.G., kand.tekhn.nauk, retsenzent; YAKOVLEVA, Ye.A., kand.tekhn.nauk, retsenzent; TITOV, V.P., kand.tekhn.nauk, retsenzent; GRUSHEVOY, N.G., inzh., red.; BROMBERG, Ye.M., kand.tekhn.nauk, red.; KHITROV, P.A., tekhn. red.

[Railroad tracks] Zheleznodorozhnyi put'. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 615 p. (MIRA 14:12)

1. Kafedra "Zheleznodorozhnyy put'" Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta (for Amelin, Konstantinov, Smirnov, Yakovlev). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (for Bochonkov, Bromberg, Yershkov, Zverev, Zolotarskiy, Ivashchenko, Linev, Markar'yan, Popov, V.V., Popov, S.N., Serebrennikov, Shafranovskiy, Novitskiy). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva (for Viktorov, Vysotskiy, Saatchyan, Yakovleva, Titov)

(Railroads—Track) (Railroad engineering)

POPOV, V.V., kand.tekhn.nauk

Wear of the ties under tie plates and its effect on tie destruction.
Vest. TSNII MPS 21 no.1:39-43 '62. (MIRA 15:2)
(Railroads--Ties)

POPOV, V.V., kand.tekhn.nauk; MAMONTOVA, Z.G., inzh.; NEZHAYEVA, T.V., inzh.

Methods of oil impregnation of fir, pine and larch ties with preliminary puncturing. Trudy TSNII MPS no.224:58-104 '62. (MIRA 15:4)

(Railroads—Ties) (Wood—Preservation)

VSEVOLODOV, E.B.; GOLICHENKOV, V.A.; POPOV, V.V.

Migration of the nuclei-containing elements into the posterior cortex of the lens of mammals and some problems of the morphogenesis of the crystalline lens. Vest. Mosk un. Ser. 6:Biol., pochv. 19 no.2:25-37 Mr-Ap '64. (MIRA 17:9)

1. Kafedra embriologii Moskovskogo universiteta.

POPOV, V.V.

Photometric determination of carboxyhemoglobin in the blood. V. V. Popov (Lvov Med. Inst.). *Ukrain. Biokhim. Zhur.* 25, 227-32(1953)(Russian summary).—The absorption of light by solns. of hemoglobin, carboxyhemoglobin, and hemin was found to be dependent on the abs. content of hemoglobin in the blood. The photometric method approaches van Slyke's gasometric method in accuracy but is much simpler to use. B. Gutoff

POPOV, V. V.

Dissertation: "A Photometric Method to Determine Carboxyhemoglobin and Its Comparative Evaluation." Cand Med Sci, L'vov State Medical Inst, L'vov, 1954. (Referativnyy Zhurnal--Khimiya, Moscow, No 12, Jun 54)

SO: SUM 318, 23 Dec 1954

POPOV, V.V.

Comparative evaluation of methods for the determination of carboxyhemoglobin in blood. Ukr.biokhim.zhur. 26 no.4:460-464 '54.
(MLRA 8:3)

1. Kafedra zagal'noi gigieni i kafedra biokhimii L'vivs'kogo medichnogo institutu.
(Carbonylhemoglobin)

SOBCHUK, B.A.; POPOV, V.V.

Photometric determination of carboxyhemoglobin . Ukr.biokhim. zhur. 27 no.1:119-122 '55. (MLRA 8:6)

1. Kafedra zagal'noi gigiyeni i dafedra biokhimii L'vivs'kogo medichnogo institut.
(Carbonylhemoglobin) (Photometry)

POPOV, V. V.

The dynamics of the alkaline denaturation of hemoglobin derivatives of the blood of man and of animals. V. V. Popov and B. A. [illegible] (Med. Inst., Lvov). *Ukrain. Biokhim. Zhur.* 28, 20[illegible]-4 (Russian summary, 264)(1956).—The rate of alkaline denaturation of oxyhemoglobin and of carbon monoxide hemoglobin differs with the blood of different animals and with the temp. The reaction of alkaline denaturation of hemoglobin derivatives, which theoretically offers possibilities for the quant. detn. of carbon monoxide hemoglobin is in fact of no practical value. The practical application of this reaction should be limited to the identification of hemoglobin derivatives in one animal species or of the same derivative of hemoglobin in different animal species. B. S. Levine

Med

Chem Gen-Hygiene + Chem of Biochemistry

POPOV, V.V.; SOBCHUK, B.A.

Photometric method for the quantitative determination of carboxyhemoglobin. Fiziol.zhur. 42 no.9:825-826 S '56. (MLRA 9:11)

1. L'vov, Medinstitut.
(HEMOGLOBIN,
carboxyhemoglobin, photometric determ. (Rus))

POPOV, V.V.; SOBCHUK, B.A.

Photometric hemoglobin determination. Lab.delo 3 no.3:19-20 My-Je '57.
(MLRA 10:9)

1. Iz kafedry obshchey gigiyeny (zav. - prof. V.Z.Martynyuk) i kafedry biokhimii (zav. - dotsent B.A.Sobchuk) L'vovskogo meditsinskogo instituta.

(HEMOGLOBIN) (PHOTOMETRY)

POPOV, V.V.

Hygienic aspects of new housing construction in Lvov. Vrach.delo no.3:293 Mr'58 (MIRA 11:5)

1. Kafedra gigiyeny pitaniya i kommunal'noy gigiyeny (zav. - prof. A.I. Stolmakova) L'vovskogo meditsinskogo instituta.
(LVOV--DWELLINGS--HYGIENIC ASPECTS)

POPOV, V.V., kand.med.nauk, NOVIKOVA, Ye.P.

Fluorine and thiocyanide content of drinking water and food products in an area of endemic goiter. Vrach.delo no.8:871 Ag '58 (MIRA 11:8)

1. Kafedra gigiyeny pitaniya i kommunal'noy gigiyeny (zav. - prof. A.I. Stolnakova) L'vovskogo meditsinskogo instituta.
(GOITER)
(FLUORINE)

POPOV, V. V., kand. med. nauk

Iodine and manganese content in the potable water in an endemic goiter focus. Vrach. delo no.3:121-124 Mr '62.
(MIRA 15:7)

1. Kafedra gigiyeny pitaniya i kommunal'noy gigiyeny (zav. - prof. A. I. Stolmakova) L'vovskogo meditsinskogo instituta.

(LVOV PROVINCE--GOITER) (DRINKING WATER)

VERZHIKOVSKAYA, V.G. [Verzhykovs'ka, V.H.]; POPOV, V.V.

Use of flame photometry in pharmaceutical practice. Farmatsev. zhur. 17 no.5:17-20 '62. (MIRA 17:9)

1. Kafedra biokhimii, gigiyeny i mikrobiologii Zaporozhskogo farmatsevticheskogo instituta.

[illegible], I.V.

Nomogram for calculating the optimal reflux ratio. Khim. i tekh. topl. i masel 9 no.7:43-46 Jl '64.

(MIRA 17:12)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342420003-2"

L 38254-66 EWT(m)

ACC NR: AP6028647 SOURCE CODE: UR/0020/66/166/006/1480/1483

AUTHOR: Popov, V. V.; Mel'nikov, V. A.; Kozlov, Yu. P.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Certain physico-chemical changes in irradiated skin in connection with its formative peculiarities

SOURCE: AN SSSR. Doklady, v. 166, no. 6, 1966, 1480-1483

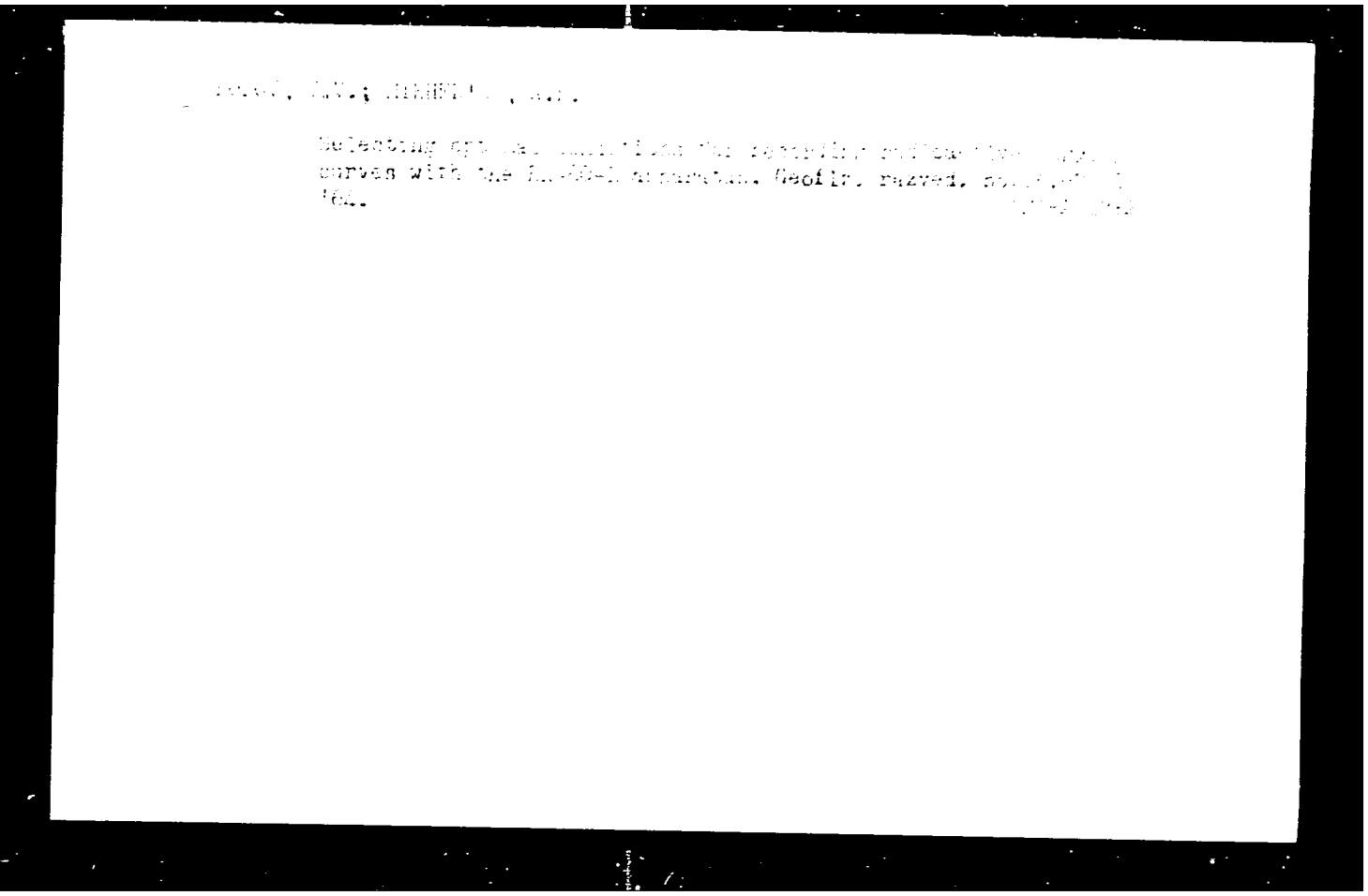
TOPIC TAGS: radiation biologic effect, skin physiology, tissue transplant, free radical, dermatology

ABSTRACT: The authors studied this question: if intensification of reactivity of irradiated skin is accompanied by a reduction in the level of radical processes taking place in it, then is the lower reactivity of sound-treated transplants not associated with an increase in the content of free radicals? Comparing the periods of the beginning and end of secondary induction of the horny layer in sound-treated, irradiated and normal skin with the dynamics of free radical reactions taking place, they concluded that there is a certain functional relation between physico-chemical or submicroscopic processes in the cells of the epidermis and formative properties of skin transplants. This article was presented by Academician A. N. Belozerskiy on 25 August 1965. Orig. art. has: 2 tables. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 25Aug65 / ORIG REF: 004 / OTH REF: 001

Card 1/1 mlp

UDC: 591.3



VAZHNOV, A.I.; POPOV, V.V.

Static stability of an electric power transmission system with an asynchronous support compensator. Trudy LPI no.241:135-142 '64. (MIRA 18:4)

MUZHZHAVLEV, K.D.; LEBEDEV, O.A.; FRANTAS'YEV, N.A.; OLYUNIN, G.V.; SHEKA, T.S.; DOLGIKH, T.K.; Prinimali uchastiye: POPOV, V.V.; SHEKA, V.P.

Results of testing individual design elements of magnesium electrolytic cells. TSvet. met. 38 no.5:57-60 My '65.
(MIRA 18:6)

POPOV, V.V.

Automatic water-level regulator in boilers. Transp. i khran. nefti pt. c no.2:38 '63. (MIRA 17:10)

1. Uleshovskaya neftebaza Saratovskogo upravleniya Glavnogo upravleniya po transportu i snabzheniyu neft'yu i nefteproduktami RSFSR.

L 41499-65 EWG(j)/EWT(m)
ACCESSION NR: AP4043217 S/0205/64/004/004/0587/0593

AUTHOR: Golichenkov, V. A.; Popov, V. V.; Vsevolodov, E. B.; Kozlov, V. A.

TITLE: Beta-mercaptoprophylamine protective action against radiation damage of the crystalline lens intensified by traumatization

SOURCE: Radiobiologiya, v. 4, no. 4, 1964, 587-593

TOPIC TAGS: frog, eye, radiation injury, beta-mercaptopropylamine, radioprotector

ABSTRACT: In earlier studies the authors have demonstrated that a slight trauma of an irradiated crystalline lens causes accelerated development of a radiation cataract within 2 to 3 days, a condition referred to as a "surgical aftereffect." The present study was undertaken to determine whether a radioprotector can prevent the "surgical aftereffect" in an irradiated crystalline lens, and whether the "surgical aftereffect" condition can be used as a quick means for preliminary testing of a radioprotector's effectiveness. In a series of experiments, groups of frogs were X-irradiated locally (only the head) with a 15 kr dose (RUD-100/20 unit, 100 kv, 3 ma, focal length

Card 1/2

L 41499-65
ACCESSION NR: AP4043217

0

8 cm, 400 r/min) and non-irradiated groups served as control. On the third day following irradiation, the right eye of each experimental animal was punctured (at a depth of 1/6 the eye diameter) to induce a "surgical aftereffect" and the left eye served as a control. Beta-mercaptopropylamine (400 mg/kg dose) was administered parenterally or locally in the anterior chamber of the eye, and larger doses were administered to some animals. Visual functioning of the eyes was tested and in some cases electroretinograms were also made. Eye sections were prepared and stained for histological investigation. Findings show that beta-mercaptoprophylamine (400 mg/kg) administered parenterally or locally does not affect the visual functioning of the eyes in nonirradiated animals. A beta-mercaptoprophylamine dose of more than 400 mg/kg combined with X-irradiation may cause functional disorders of the eye, even blindness. Beta-mercaptopropylamine (400 mg/kg dose) prevents "surgical aftereffect" in a traumatized irradiated crystalline lens. The use of "surgical aftereffect" for quick preliminary testing of radioprotector effectiveness appears feasible. Orig. art. has: 4 figures and 1 table.

Card 2/3 Submitted 13 May 63

L 43101-65 EWG(j)/EWG(r)/EWT(l)/FS(v)-3/EWG(v)/EWG(a)-2/EWG(c) Pb-4/Pe-5 DD
ACCESSION NR: AR5008616 S/0299/65/000/004/M021/M021

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 4M114

AUTHOR: Sikharulidze, T. A.; Popov, V.V.

TITLE: Some data on experimental effects on the regeneration of the lens in mammals

CITED SOURCE: Sb. Probl. sovrem. embriol. M., Mosk. un-t, 1964, 521-531

TOPIC TAGS: tissue transplant, tissue regeneration, crystalline lens, cataract surgery, epidermal flap, embryo tissue

TRANSLATION: The cataractous lens of adult rabbits, 3 months to 1 year of age, was removed and replaced with a flap of eyelid epidermis from 15-20 day-old embryos after 6-7 days of preservation. The operation was performed on a total of 105 animals. In 30-40% of the recipients, the constructed lens was regenerated more or less correctly, proceeding, in the authors' opinion, from the material of the transplantate. There was no regeneration of the lens from lens fragments accidentally or intentionally left in the eye, nor from the lens capsule, in control animals in the absence of embryonic tissue.
E. Panteleyev

SUB CODE: LS ENCL: 00

Card 1/1

ГОРОВ, V. V.

Coal Mines and Mini... - Kuznetsk Basin

Filling material for the mines of the Kuznetsk coal basin. Ugol' 27 no. 5 (1952)

9. Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

POPOV, V.V.

Sanitary and hygienic characteristics of the Irtysh River in the area of Pavlodar. Zdrav. Kazakh. 22 no.8:61-63 '62
(MIRA 17:4)

1. Iz Pavlodarskoy oblastnoy sanitarno-epidemiologicheskoy stantsii. Nauchnyy rukovoditel' temy - prof. I.S. Koryakin.

ACCESSION NR: AP4030794 S/0020/64/155/004/0940/0943

AUTHOR: Popov, V. V.; Golichenkov, V. A.; Farberov, A. I.; Sokolova, Z. A.

TITLE: Mechanism of accelerated development of radial cataracts triggered by pricking an irradiated eye lens

SOURCE: AN SSSR. Doklady*, v. 155, no. 4, 1964, 940-943

TOPIC TAGS: eye lens irradiation, radial cataract, cataract, eye operation, radiobiology

ABSTRACT: Since any operation inside an adequately irradiated eye causes a cataract, the authors undertook a very comprehensive investigation (frogs Rana temporaria) to find the radiation doses, the duration of their activity and the pathological changes in the eye. They found that the radiation without pricking the eye does not provoke a cataract (at least not before 10-12 months). The minimum dose is 500 roentgens and the maximum dose is 10000-15000 roentgens. In the former case, the cataract appears after 3-7 days. In the latter case it appears 0.5 - 2.0 hrs after the lens has been pricked. 149 animals were tested. The changes in tissues are described in detail. They are submicroscopical. In

Card 1/2

POPOV, V.V.

Determination of the ash content in anthracites from SP anomalies.
Geofiz.razv. no.13:127-137 '63. (MIRA 17:4)

POPOV, V.V., inzhener.

New field preparation method in the Kuznetsk Basin coal mines.
Ugol' 29 no.4:18-21 Ap '54. (MLRA 7:2)

1. Kuzbassgiproshakht.
(Kuznetsk Basin--Coal mines and mining)
(Coal mines and mining--Kuznetsk Basin)

POPOV, V.V.

Mining systems for the coal fields of the Kuznetsk Basin producing 200-300 thousand tons per year. Ugol' 30 no.1:7-10 Ja '55. (MLRA 8:3)

1. Kuzbassgiproshakht.
(Kuznetsk Basin--Coal mines and mining)

POPOV, V.V.

Practice of using the AKS-L-51 automatic logging station in connection with coal deposits. Geofiz. razved. no.5:104-112 '61. (MIRA 15:3)

(Logging (Geology)) (Coal geology)

KAMYNIN, Yu.N., inzh.; POPOV, V.V., inzh.

Transducers of the contactless equipment for mine automation. Ugol.prom. no.5:56-64 S-O '62. (MIRA 15:11)

1. Luganskiy filial Gosudarstvennogo proyektno-konstruktorskogo instituta avtomatizatsii rabot v ugol'noy promyshlennosti.
(Coal mines and mining—Electronic equipment)

POPOV, V.V.

Interpreting the self-potential log of coal deposits. Geofiz. razved. no.7:92-101 '62. (MIRA 15:7)
(Donets Basin--Electric prospecting)

POPOV, V.V.

Interpretation of the gradient curve of spontaneous polarization in pitching anthracite seams. Geofiz. razved. no.9:119-127 '62. (MIRA 15:9)

(Coal geology) (Electric prospecting)

SMORODINOV, V.Ya.; POPOV, V.V.

Using a flame screen in a furnace for heating pipes. Gaz. prom. 8 no.6:24-26 '63. (MIRA 17:8)

POPOV, V.V.; MAN'KOV, B.V.; MALYGIN, A.A.

Structural characteristics of the Tishinskoye deposit region in Rudnyy Altai. Izv. AN Kazakh. SSR. Ser. geol. 21 no.3:67-83 My-Je '64. (MIRA 17:11)

1. Vostochno-Kazakhstanskoye geologicheskiye upravleniye, Ust'-Kamenogorsk, i Institut geologicheskikh nauk im. K.I. Satpayeva AN KazSSR.

87574

S/120/60/000/004/013/028
E073/E435

1.5210

AUTHORS: Vereshchagin, L.F., Galaktionov, V.A. and Popov, V.V.

TITLE: On a Tetrahedral Holl Press for Producing Pressures up to 0.1 Matm at Temperatures up to 200 °C

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No.4, pp.106-109

TEXT: The possibility of obtaining very high pressures is of considerable interest from the point of view of producing new materials (synthetic diamonds and borazon) and also from the point of view of geophysical and geochemical investigations. It is anticipated that in the near future, metallurgical investigations will be made at very high pressures and temperatures since the effect of pressure on the displacement of the equilibrium curves of the diagram of state may be considerable. H.T.Holl (Rev. Scient. Instrum., 1958, 29, No.4, 267 - Ref.1) devised an interesting tetrahedral press in which the pressure is transmitted to the specimen by means of a plastic solid body without additionally introducing an element in the liquid phase. The size of the pressure chamber is also larger than that of the design developed by Bridgman. The authors were interested in investigating the possibility of obtaining high pressures by this

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On a Tetrahedral Holl Press for Producing Pressures up to 0.1 Matm at Temperatures up to 200 °C

method and also the obstacles involved in increasing further the pressure and the temperature in equipment of this type. For this purpose, an equipment consisting of four hydraulic presses arranged in the apices of a tetrahedron was designed and tested. The pistons with end pieces, as shown in Fig.1, compress a plastic solid body in the form of a tetrahedron with sides of about 10 mm. The photograph (Fig.1) shows tups (a) which, if suitably arranged, effect the compression of the plastic solid body in the form of a tetrahedron. The same figure shows a tetrahedron from pyrophyllite in various stages of preparation of the container ((b)- initial tetrahedron during fitting of the container, (B) - container substance under investigation which serves simultaneously as the heating element). The container is intended for housing the material to be investigated and also serves as a low resistance electric heating element. The electrical circuit for heating the container consists of tups which are insulated from the body and a container in the form of a metallic tube with covers. Metallic

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strips are welded to the covers which pass from the pyrophyllite tetrahedron along its edges and are in contact with the tups. The high current density for a voltage of a few V is obtained by using two-stage stepdown transformers. The temperature is evaluated from the fusion points of certain metals that are placed into the high-pressure zone. Fig.2 shows a photograph of the apparatus. The force coupling between the hydraulic cylinders can have various forms. In the given case, the cylinders are linked by columns which are in tension when the specimen is in compression. The large diameter of the columns is due to the desirability of reducing the stresses in order to eliminate any changes in the direction of the axes of the cylinders during the process of compression. To ensure initial convergence of the cylinder axes strictly in the centre of the tetrahedron, the length of the columns 1 can be varied by means of regulating nuts 2, located on both sides of the flanges 3, on which the cylinders 4 of the hydraulic presses are fixed. To observe the deviation from the

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correct position of the axes of the cylinder, the tups are substituted during the calibration by rods with sharp tips. The ends of the rods should converge into one point and the angles between the rods should be equal. In spite of the very careful initial adjustment of the cylinders and of the tups, there were short-circuits in the heating circuit, indicating that at large pressures (exceeding 50000 atm) the position of the tups differs from the initial one. Strain-gauge measurements showed that the tensile stresses in the individual columns may differ very greatly (by a factor of up to 2) and this is attributed to disturbances in the symmetry of the compression of the pyrophyllite tetrahedron. To localize the moments arising in the case of nonsymmetric loading in the press the tups can be prevented from shifting by using pull rods, which apparently has been done in the design of Holl. It was established that inside the pyrophyllite tetrahedron the pressure increases linearly with increasing forces in the hydraulic cylinders until such time as the

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On a Tetrahedral Holl Press for Producing Pressures up to 0.1 Matm at Temperatures up to 200°C

thickness of the pyrophyllite film at the side faces of the tups is reduced to hundredths and thousandths of a mm. After that, a further increase in the force of the hydraulic presses does not result in an increase of the pressure of the specimen since the tups transmit the pressure to each other without compressing the pyrophyllite in the centre. The pressure which could be recorded in an equipment of such a type was 70000 to 80000 atm. It was established that the principle of Holl is correct. However, its practical realization leads to numerous difficulties which are analysed in this paper. There are 3 figures and 3 references: 1 Soviet and 2 non-Soviet.

ASSOCIATION: Institut fiziki vysokikh davleniy AN SSSR
(Institute of High-Pressure Physics AS USSR)

SUBMITTED: December 15, 1959

Card 5/6

87371
S/120/60/000/004/013/028
E073/E435

On a Tetrahedral Holl Press for Producing Pressures up to 0.1 Matm at Temperatures up to 200°C

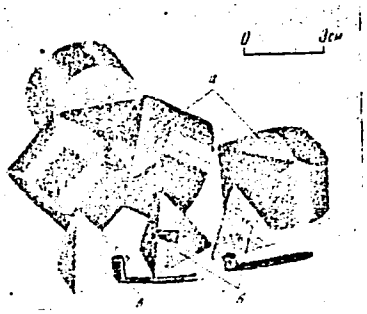

Рис. 1. Наиболее существенные детали установки. *а* — наковальни, *б* — исходный тетраэдр в процессе монтажа контейнера, *в* — контейнер для исследуемого вещества; он же — электронагревательный элемент

Fig.1.

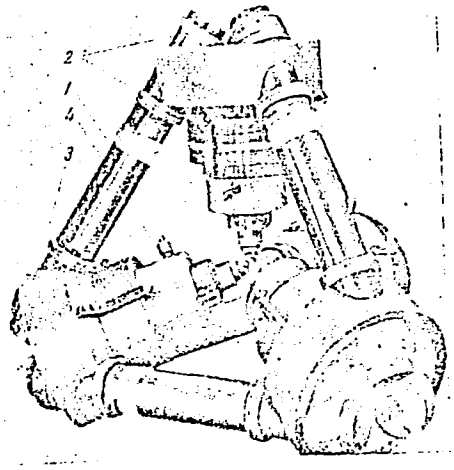

Рис. 2. Общий вид тетраэдрического процесса. *1* — колонны, *2* — регулировочные гайки, *3* — фланцы, *4* — гидравлические прессы

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POPOV, V.V.

Vapor pressure of some organosilicon compounds. Plast.massy no.8:26 '60. (MIRA 13:10)
(Silicon organic compounds) (Vapor pressure)

POPOV, V.V.; SAKHIYEV, A.S.; KORABLINA, T.P.

Approximate method for determining the optimum reflux-to-product ratio in the course of the continuous rectification of a mixture of methylchlorosilanes. Plast.massy no.4:18-21 '61. (MIRA 14:4)

(Silane) (Distillation, Fractional)

POPOV, V.V.; KORABLINA, T.P.; SAKHIYEV, A.S.

Calculation of continuous rectification systems with recycling of distillate and stillage residue flow. Plast.massy no.6:25-28 '61. (MIRA 14:5)

(Distillation, Fractional)

POPOV, V.V.

Semiperiodical process of selecting distillates by example with the rectification of a mixture of methylchlorosilanes. Plast.massy no.9:24-25 '61. (MIRA 15:1)
(Silane) (Distillation, Fractional)

POPOV, V.V.; SVERCHINSKIY, B.S.

Calculation of a continuous multicomponent rectification on a large electronic computer. Khim. i tekh. topl. i masel. 8 no.3:47-54 Mr '63. (MIRA 16:4)

(Distillation, Fractional)
(Electronic computers)

POPOV, V.V.; POPOVA, L.M.

Optimal reflux-to-product ratio during rectification. Khim. i tekh. topl. i masel 8 no.10:1-3 O '63. (MIRA 16:11)

POPOV, V.V.

Calculating the optimum reflux ratio in continuous rectification. Khim. i tekh. topl. i masel 9 no.1:44-47 Ja '64.
(MIRA 17:3)

DUBROVKIN, V.L.[deceased]; CHEKLINA, Ye.A.; VINOGRADOVA, Ye.A.; TSAREVA, A.M.; POPOV, V.V., prof., red.

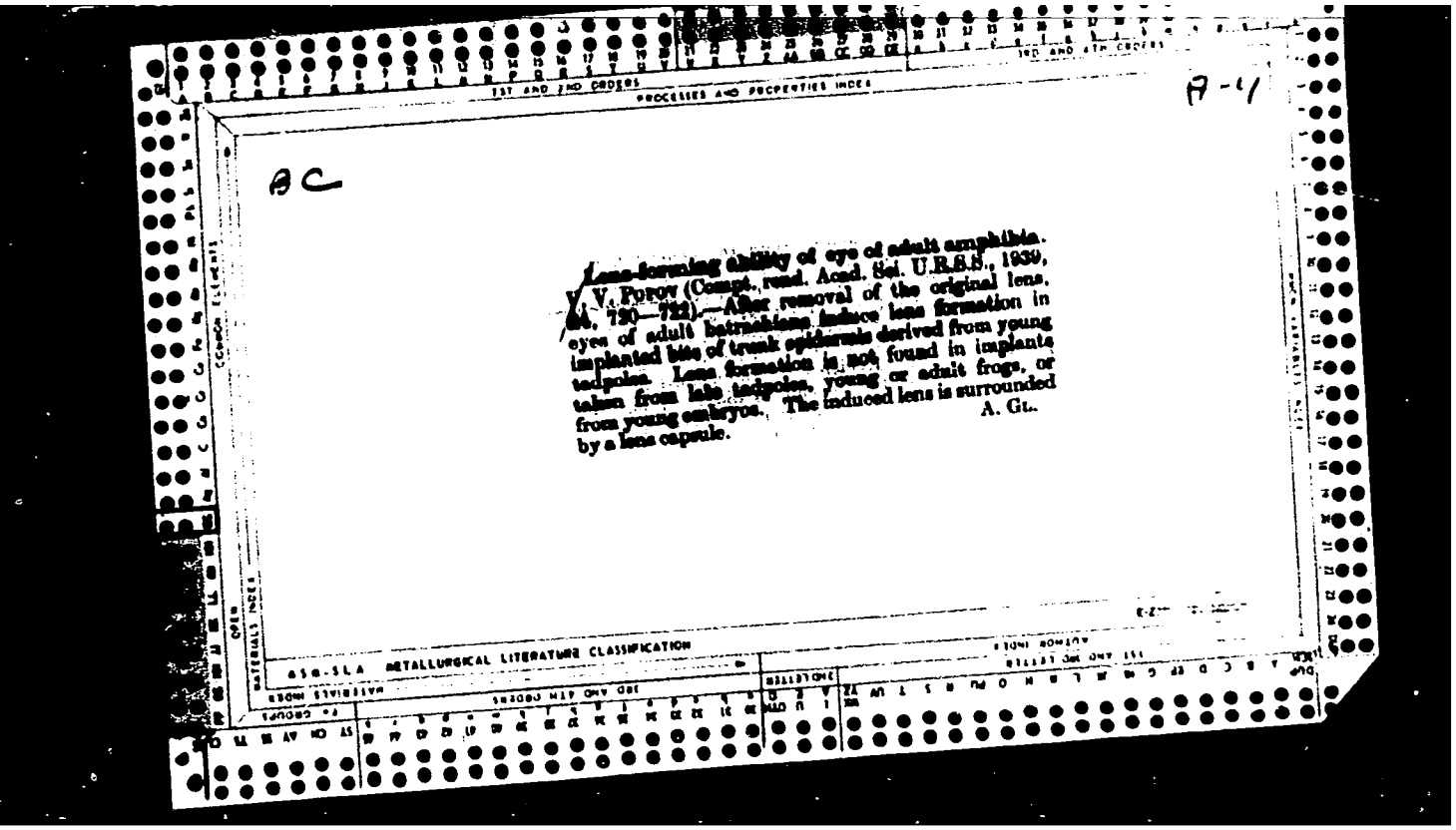
[Engineering geology characteristics of loess in the Kursk Magnetic Anomaly] Inzhenerno-geologicheskaia kharakteristika lessovykh porod territorii KMA [By] V.L.Dubrovkin i dr. Moskva, Nedra, 1964. 198 p. (MIRA 18:2)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii.

POPOV, V. V.

"The Formation Of a Lense In The Eye-Socket Of The Embryos Of Amphybians From Pieces Of Body Epythelium. Laboratory, Chair Of Histology And Embriology (Chief: Prof. V. V. Popov), State University, Gorkii." (p. 483) by Popov, V. V.

SO: PREDECESSOR OF JOURNAL OF GENERAL BIOLOGY. (Biologicheskii Zhurn l) Vol. VII, 1 3, No. 3



AC

A-1

Lens-forming ability of eye of adult amphibia. V. V. Popov (Compt. rend. Acad. Sci. U.R.S.S., 1939, 24, 720—722).—After removal of the original lens, eyes of adult batrachians induce lens formation in implanted bits of trunk epidermis derived from young tadpoles. Lens formation is not found in implants taken from late tadpoles, young or adult frogs, or from young embryos. The induced lens is surrounded by a lens capsule. A. Gt.

POPOV, V. V.

"Contribution to the Species Specificity in the Lens Forming Properties of the Eye Anlage," Dokl. AN SSSR, 25, No.3, 1939.

Inst. Experimental Morphogenesis, Moscow U.; Dept. Histology and Embryology, Gor'kiy U.

BORODITSKAYA, R.M., inzh.; ZHUDOV, V.F., inzh.; POPOV, V.V., inzh.

Using slag binding material in the production of products for large panel-type apartment house construction. Stroi. mat. 9 no.8:20-21 Ag'63. (MIRA 17:5)

POPOV, V.V.; GOLICHENKOV, V.A.; FARBEROV, A.I.; SOKOLOVA, Z.A.

Mechanism of the accelerated development of radiation cataracts caused by puncturing the irradiated crystalline lens. Dokl. AN SSSR 155 no. 4:940-943 Ap '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom A.N.Belozerskim.

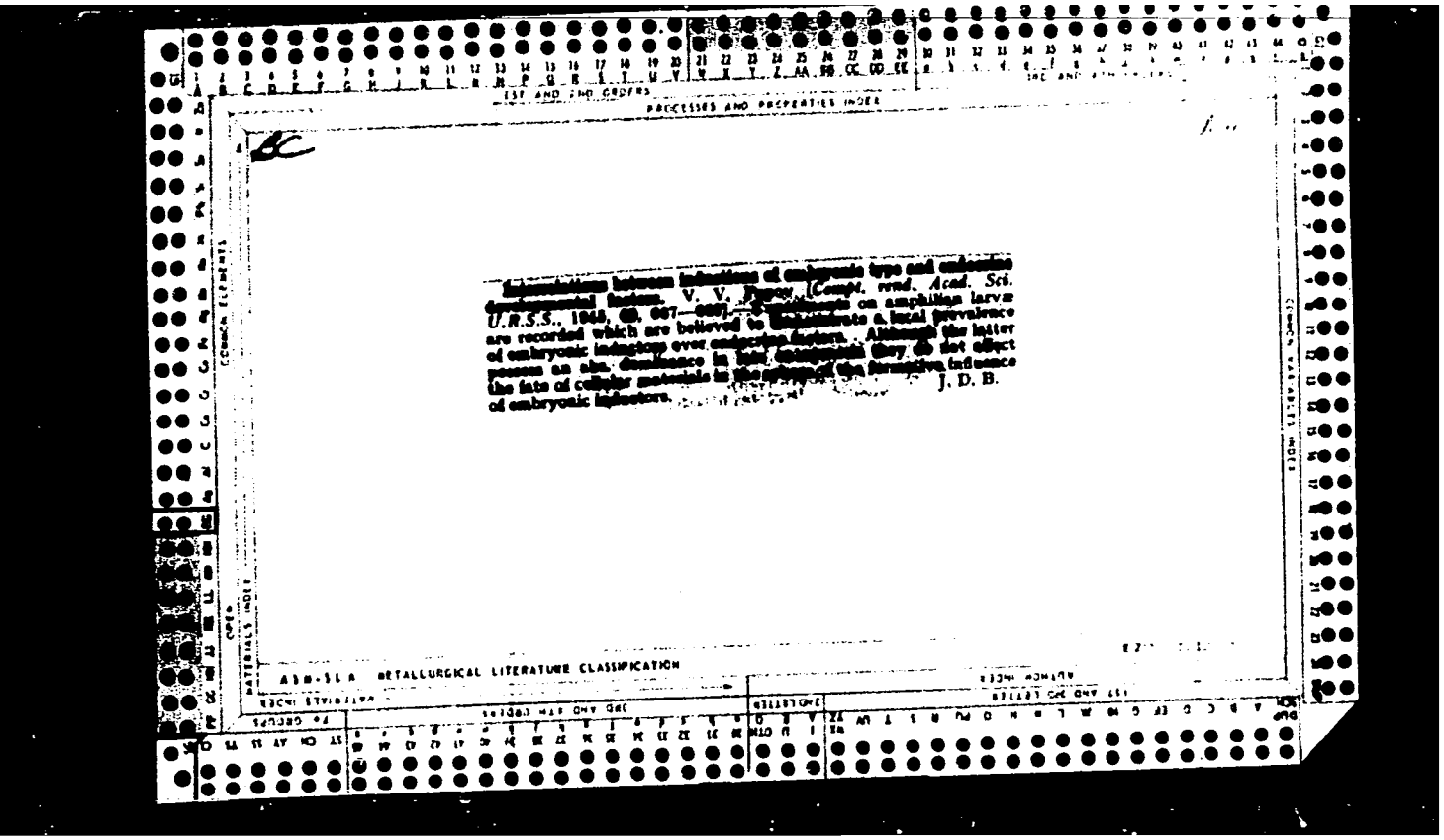
POPOV, V? V.

"Zoogeography and Some Morphological Peculiarities of the Family Trigonaloidae (Hymenoptera)," Dokl. AN SSSR, 48, No.1, 1945

Inst. Cytology, Histology and Embryology, AS USSR
Lab. Embryology, Moscow State U.

POPOV, V. V.

"Induction of Tympanic Membrane in Bombina Bombina and Pelobates Fuscus," Dokl. AN SSSR 48, No.5, 1945



Interrelations between inductions of embryonic type and endocrine developmental factors. V. V. Popov. *Compt. rend. Acad. Sci. U.R.S.S.*, 1948, 59, 987—989.—Experiments on amphibian larvae are recorded which are believed to demonstrate a local prevalence of embryonic inductions over endocrine factors. Although the latter possess an obs. dominance in late metamorph. they do not affect the fate of cellular materials in the sphere of the formative influence of embryonic inductors. J. D. B.

POPOV, V. V.

"Induction of the Tympanic Membrane Under the Influence of an Adult Tympanic Cartilage," Dokl. AN SSSR, 51, No.1, 1946

Popov, V.V. "The adult eye as an inductor of crystalline lens and the cornea," Sbornik nauch. rabot, posvyashch. pamyati akad. Aterbakha, Moscow-Leningrad, 1948, p. 119-38

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

POPOV, V. V.

USSR/Medicine - Tissue Transplanta- May/Jun 51
tion

"Restoration of the Cornea of Adult Mammals by Replacing it With Embryonal Skin," V. V. Popov, T. A. Bednyakova, T. G. Belyaeva, Exptl Embryol Lab imeni Filatov, Inst of Animal Morphol, Acad Sci USSR, and Chair of Embryol, Moscow State U imeni Lomonosov

"Iz Ak Nauk SSSR, Ser Biol" No 3, pp 3-17

Based work on Popov's expts on adult lower vertebrates, such as amphibia and fish. Used lab rats for expts. Rat embryos, 13 - 19 days old served

186T70

USSR/Medicine - Tissue Transplantation May/Jun 51
(Contd)

as donors. Obtained best results with transplantations of skin from embryo 15 - 17 days old. Carried out total of 217 transplantations. Transplantate does not grow into skin, but always develops into cornea, exactly as had been demonstrated in expts conducted on lower vertebrates.

186T70

POPOV, V.V.

Regeneration of the cornea in mammals. Vest.Akad.nauk SSSR 21 no.4: 65-66 Apr 51. (CIML 20:8)

POPOV, V.V.;BORSUK, R.A.

Transplantation of embryonal skin into the cornea in adult birds. Doklady Akad nauk SSSR 85 no. 5:1181-1184 11 Aug 1952. (CIML 23:3)

1. Presented by Academician A. I. Abrikosov 10 June 1952. 2. Moscow State University imeni M. V. Lomonosov.

USSR/Biology - Transplantation of Organs Jan 52

"New Ways of Restoring Organs," Prof V. V. Popov, Lab of Exptl Embryol, Inst of Animal Morphol imeni A. N. Severtsov

"Priroda" No 1, pp 49-62

On the basis of extensive exptl material obtained over a number of years by himself and his collaborators, Severtsov discusses transplantation and restoration of organs of amphibia, fish, and mammals. Describes successful implantation of teeth into hip bone of adult rat or young dog,

211T16

technique of heterotransplantation of legs of rats (an operation which is successful only when the transplant receives an uninterrupted blood supply), etc. In the course of this work, developed technique of transplanting young cell tissue rather than embryonal organs. The kind of organ which develops then depends on the site of implantation. Outlines method of restoring cornea of rats which is based on this principle and involves implantation of fetal skin; also mentions similar work on restoration of tympanum and cryst lens. Says that although pos results had been obtained by this method on amphibia,

211T16

fish, birds, rats, and giunea pigs, similar expts were still conducted on rabbits and dogs, because the eyes of these animals resemble more closely those of humans.

211T16

USSR/Medicine - Regeneration of Tissues Aug 52

"Replacement of the Cornea of Adult Birds With Embryonal Skin," V. V. Popov, R. A. Borsuk, Moscow State U

"DAN SSSR" Vol 85, No 5, pp 1181-1184

Expts on the restoration of corneas by transplantation of embryonal skin led to successful results on amphibia, fish, and apparently also on mammals. However, the results on mammals were confused by the frequent occurrence of pathological changes of the eye due to inflammation. For that reason data on birds, which are also higher warm-blooded vertebrates, but do not often develop inflammations, were of particular importance. Expts on the restoration of corneas of adult pigeons by transplanting the skin of 10-day-old embryos were carried out and proved to be entirely successful.

239T3

POPOV, V. V.

239T3

Popov V.V.

USSR/General Biology - Individual Development B-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, No 9511

Author : Popov, V.V.

Inst : Not Given

Title : Experiments on Inversion of Crystalline Lens in Amphibia.

Orig Pub : V sb.: Probl. sovrem. embriologii, L., Un-t, 1956, 348-352

Abstract : Polarity of the crystalline lens is established very early and is invariably retained for a long while in the absence of structures which support and fix a definite state of the crystalline lens (synovial membranes form much later). The crystalline lens was extracted from the eye of larvae and very young frogs, toads and tritons, turned 180° on the longitudinal axis and, in this position, was replanted into the eye. Tests on slices showed that inverted crystalline lenses rotate and after some time achieve a normal orientation. A full turn of the crystalline lens in tadpoles of grass frogs ends in 4-5 days. A reverse turn of the crystalline

Card : 1/2

POPOV, V.V.

Recapitulation of formative relationships in the individual development of animal organisms. Biul.MOIP. Otd.biol. 62 no.3:103-105 My-Je '57.
(ONTOGENY) (MLRA 10:8)

POPOV, V.V., RUKAVISHNIKOV, Yu.M., SHARLAT, Ye.S.

Development of the cornea from X-irradiated skin. Nauch.dokl.vys. shkoly;biol.nauki no.1:49-55 '58 (MIRA 11:8)

1. Predstavlena kafedroy embriologii Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(X RAYS--PHYSIOLOGICAL EFFECT)
(CORNEA--TRANSPLANTATION)

POPOV, V.V.; FARBEROV, A.I.

Effect of light on corneal induction. Nauch.dokl.vys.shkoly; biol.nauki no.3:48-60 '58. (MIRA 11:12)

1. Predstavlena kafedroy embriologii Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(CORNEA) (LIGHT--PHYSIOLOGICAL EFFECT)

Popov, V.V.

SICHARULIDZE, T.A.; POPOW, W.W.

An experiment in the transplantation of embryonic epidermis to replace normal and cataractal eye lenses in adult mammals. Folia biol 8 no.3:181-198 '60. (EEAI 10:6)

1. Chair of Embryology of the Moscow State University. Director: Prof. Dr. V.V.Popov. Institute of Zoology of the Academy of Sciences of the Georgian SSR, Tiflis. Director: Prof. Dr. D.N. Kobachidze.

(EPIDERMIS)
(EYE)
(CATARACT)
(MAMMALS)

POPOV, V.V.; TUN YUN'-SYUY [T'ung Yun-hsu]

Role of the layer of retinal photoreceptors in the induction of the cornea. Zhur. ob. biol. 21 no.3:189-197 My-Je '60. (MIRA 13:7)

1. Department of Embryology, Moscow State University.
(CORNEA) (RETINA)

POPOV, V.V.

Evolution and recapitulation of formative relationships.
Zhur. ob. biol. 21 no.6:393-400 N-D '60. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(EVOLUTION)

POPOV, V.V.; VYAZOV, O.Ye.

"Studies in experimental embryology" by [prof.] B.Menkes. Vol.1. Reviewed by V.V.Popov, O.E.Viazov. Zhur. ob. biol. 22 no.5:398-400 S-O '61. (MIRA 14:9)
(EMBRYOLOGY, EXPERIMENTAL) (MENKES, B.)

S/020/61/137/001/020/021
B103/B201

AUTHOR: Popov, V. V.

TITLE: Destruction of the eye as a consequence of an internal eye operation performed after a major ionizing irradiation treatment

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 1, 1961, 192-195

TEXT: In the many years during which he has conducted experiments on the inversion of the crystalline lens in post-embryonal tadpoles of Anuria (Amphibia), the author has developed the notion of the "surgical after-effect" of X-rays in operative interventions in the eyeball. No data on the subject are elsewhere available in the literature. In the present paper, the author tries to substantiate this notion. In his first series of experiments, he studied the effect of ionizing radiation upon the "back-rotation" (obratnoye vrashcheniye) of the lens turned artificially through 180°. The author intended in this way to provide an answer to the question as to how a lens in the process of evolution is kept in a given position in the eye prior to the formation of Zinn's organ. He

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B103/B201

extracted the lenses by a cut in the cornea and then put tem back into place turned by 180°. Lenses after this sort of operation were found to turn slowly back again into the original position within 4 to 8 days. The author tries to explain this phenomenon by the electrical and electromagnetic hypotheses, and for a substantiation of his theory he refers to data by A. I. Polivoda, Yu. A. Kriger, and O. M. Zorina as well as A. V. Krylov. Also, a description is given of similar experiments conducted on tadpoles of Rana temporaria (2nd and 3rd stages of evolution according to Lapchinskiy), which were totally irradiated with doses of 20 - 1500 r, using an РУД-100/20 (RUD-100/20) X-ray apparatus. 2 or 3 days later the author performed a lens inversion in the right eye, with the left eye serving for reference. The animals were fixed on the 15th day after operation. The author noted in this connection that when applying doses stronger than 500 r, the artificially inverted lens was prevented from turning back again, without any noticeable pathological alteration occurring. Still, the lens of some animals showed normal orientation in spite of high doses (5 cases at 500r, 3 cases at 1500 r). The author tries to explain these exceptions by inaccurate handling of the re-implantation. Leaving aside the description of other experimental variants, the author then discusses the "surgical after-effect" mentioned

at the beginning. It is noted that the unoperated left reference eye did not undergo any change despite the heavy irradiation, while the operated right eye displayed very strong and fairly regular alterations. The lens epithelium proliferated into the interior of the lens, partly displacing it. At the same time, some layers of the retina changed (detachment of the pigmented epithelium), the iris decomposed, and the cornea was pigmented. In the author's opinion, these pathological changes were caused by the inversion of the lens after a rather strong ionizing irradiation. Previous results seem to indicate that irradiation of a certain intensity disturbs the developmental processes in the optical system. The author has conducted experiments in which the lens has been subjected to discission only, causing similar destruction of the eye. The "surgical aftereffect" has nothing in common with the general inhibiting effect of ionizing radiation on the regeneration of organs and tissues. The author points out a number of problems which are yet unsolved. There are 4 figures and 10 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

Destruction of the eye...

S/020/61/137/001/020/021
B103/B201

PRESENTED: September 26, 1960, by I. I. Shmal'gauzen, Academician

SUBMITTED: September 23, 1960

Card 4/4

BORSUK, R.A.; POPOV, V.V.

Effect of certain light conditions on the Wolffian regeneration of the crystalline lens in larvae of the newt Pleurodeles Waltlii. Dokl. AN SSSR 139 no.6:1487-1490 Ag '61. (MIRA 14:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom I.I. Shmal'gauzenom.
(CRYSTALLINE LENS)
(REGENERATION(BIOLOGY))
(LIGHT—PHYSIOLOGICAL EFFECT)

POPOV, V.V.; VELIKANOVA, K.M.

Increasing the accuracy of the reverse turn of the inverted crystalline lens by marking it. Nauch.dokl.vys.shkoly; biol.nauki no.4:50-54 '62. (MIRA 15:10)

1. Rekomendovana kafedroy embriologii Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(CRYSTALLINE LENS)

POPOV, V.V.; PAVLOVA, T.A.

Effect of ultrasonic waves on the ability of the skin to transform into the cornea. Vest. Mosk. un. Ser. 6:Biol. pochv. 17 no.6:10-19 N-D '62. (MIRA 17:6)

1. Kafedra embriologii Moskovskogo universiteta.

POPOV, V.V.

Experiments on injuries to the irradiated crystalline lens. (MIRA 15:3)
Zhur. ob. biol. 23 no.1:24-34 Ja-F '62.

1. Department of Embryology, State University of Moscow.
(CRYSTALLINE LENS)
(RADIATION—PHYSIOLOGICAL EFFECT)

POPOV, V.V.; AL'SAKINI, A.V.

Inner retinal layers and the development of the crystalline lens. Zhur. ob.biol. 23 no.5:350-358 S-O'62. (MIRA 16:6)

1. Department of Embryology, State University of Moscow.
(RETINA) (CRYSTALLINE LENS)